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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

May 25, 1995

By Hand

William F. Caton Acting Secretary Federal Communications Commission 1919 M Street, NW Washington, DC 20554

Re: Ex Parte Presentation, CC Docket No. 92-297

Dear Mr. Caton:

This is to advise the Commission that on May 23 and 24, 1995, representatives of Titan Information Systems ("Titan") met with Commission officials to discuss the licensing of LMDS in the 28 GHz band. In each of these meetings, Titan was represented by the undersigned, President & CEO of Titan, and Robert L. Montgomery, Broadcast Communications V.P. Marketing of Titan. In meetings on May 23, 1995, the Commission was represented by Lisa B. Smith, Legal Advisor to Commissioner Barrett, Jill Luckett, Special Advisor to Commissioner Chong, Gregory Rosston, Scott Blake Harris, Chief of the International Bureau, Fern Jarmulnek, Chief of the Satellite Policy Branch, Donna L. Bethea and Michael J. Marcus, Associate Chief for Technology, Office of Engineering and Technology. In meetings on May 24, 1995, the Commission was represented by Chairman Reed E. Hundt, Rudolfo M. Baca, Legal Advisor to Commissioner Quello, Mary P. McManus, Legal Advisor to Commissioner Ness, Donald H. Gips, Deputy Chief, Office of Plans and Policy, Gregory Rosston, Laurence Atlas, Associate Bureau Chief, Wireless Telecommunications Bureau and Susan E. Magnotti.

An original and two (2) copies of this letter, along with copies of the written materials that were provided to the Commission officials at these meetings, are enclosed. A copy of this letter is being provided to the Commission officials listed above.

Sincerely,

Frederick L. Judge President & CEO

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Titan Information Systems

**Enclosures** 

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# LMDS Spectrum Issues

### Presentation To

## Federal Communications Commission

May 23 & 24, 1995



### **CONSUMER CONSIDERATIONS**

LMDS is a low cost, high quality alternative to CATV, DBS and MMDS Video delivery systems.

- Less cost per subscriber. (60 percent of traditional CATV systems).
- FM analog technology provides high quality and high availability.
- Cellular configuration permits locally focused programming on a cell by cell basis.
- Capability for interactive services.



#### **COMPETITIVE CONSIDERATIONS**

- 50 Program Channels required to compete with CATV and DBS.
- FM technology requires 20 MHz per channel for quality video.
- Thus, at least 1 GHz (20 MHz x 50 channels), required for LMDS to provide competing services.
- Contiguous frequency spectrum reduces head-end complexity and cost.
- Frequency sharing imposes operational restrictions and increased operating costs.



#### ANALOG vs. DIGITAL for LMDS

- Frequency reuse via geographical diversity and use of polarization techniques provides high spectral efficiency.
- Spectral efficiency could be further improved through use of digital compressed video technology.
- Unknown when digital price will be in competitive range.
- LMDS must differentiate service offering with price and quality.
- Today and in foreseeable future, FM analog system is viable for US as well as overseas markets.



#### PRODUCT AVAILABILITY

- Cellular Vision of New York LMDS system fully operational today.
- Several American companies have invested significantly to develop required hardware and software.
- Titan and other suppliers are poised to deliver LMDS system components for the US market.
- Same suppliers expect to ship their products to over a dozen countries around the world.
- Titan will continue to upgrade its products to add subscriber services and increase spectral efficiency where economically feasible.



#### TITAN'S RECOMMENDATIONS

- Quick resolution of the 28 GHz frequency spectrum use issue.
- Make available at least 1 GHz of contiguous spectrum at 28 GHz to enable and encourage a successful LMDS industry.
- Minimize frequency sharing encumbrances on the spectrum.